J4300 and J6300 Services Router PIM Installation Instructions

This document describes how to remove and replace a Physical Interface Module (PIM) on Juniper Networks J4300 and J6300 Services Routers. For hardware installation and basic troubleshooting procedures for J-series Services Routers, see the *J-series Services Router User Guide*.

Contents

Tools and Parts Required

To replace a component, you need the following tools and parts:

- Electrostatic bag or antistatic mat

- Electrostatic discharge (ESD) grounding wrist strap

- Phillips (+) screwdriver, number 2

Replacing a PIM

Physical Interface Modules (PIMs) in J4300 and J6300 Services Routers are field replaceable. The router must be powered off before the PIMs are removed or installed. This section contains the following topics:

- "Removing a PIM" on page 2

- "Installing a PIM" on page 3

Removing a PIM

The PIMs are installed in the front of the Services Router. A PIM weighs less than 1 lb (0.5 kg).

To remove a PIM (see Figure 1):

1. Place an electrostatic bag or antistatic mat on a flat, stable surface to receive the PIM.

2. Attach an electrostatic discharge (ESD) grounding strap to your bare wrist and connect the strap to the ESD point on the chassis, or to an outside ESD point if the Services Router is disconnected from earth ground. For more information about ESD, see the *J-series Services Router User Guide*.

3. Press and release the power button to power off the router. Verify that the POWER ON LED blinks and then turns off.

4. Label the cables connected to the PIM so that you can later reconnect each cable to the correct PIM.

5. Disconnect the cables from the PIM.

6. If necessary, arrange the cables to prevent them from dislodging or developing stress points:

   - Secure the cable so that it is not supporting its own weight as it hangs to the floor.

   - Place excess cable out of the way in a neatly coiled loop.

   - Use fasteners to maintain the shape of cable loops.

7. Loosen the captive screws on each side of the PIM faceplate.

8. Grasp the handles on each side of the PIM faceplate and slide the PIM out of the router. Place it in the electrostatic bag or on the antistatic mat.

9. If you are not reinstalling a PIM into the emptied slot, install a blank PIM panel over the slot to maintain proper airflow.

Figure 1: Removing a PIM

Captive screws

Installing a PIM

To install a PIM (see Figure 2):

1. Attach an electrostatic discharge (ESD) grounding strap to your bare wrist and connect the strap to the ESD point on the chassis, or to an outside ESD point if the Services Router is disconnected from earth ground. For more information about ESD, see the *J-series Services Router User Guide*.

2. Press and release the power button to power off the router. Verify that the POWER ON LED blinks and then turns off.

3. Align the notches in the connector at the rear of the PIM with the notches in the PIM slot in the Services Router, and then slide the PIM in until it lodges firmly in the router.

⚠ **CAUTION:** Slide the PIM straight into the slot to avoid damaging the components on the PIM.

4. Tighten the captive screws on each side of the PIM faceplate.

5. Insert the appropriate cables into the cable connectors on the PIM.

6. If necessary, arrange the cables to prevent them from dislodging or developing stress points:

   ■ Secure the cable so that it is not supporting its own weight as it hangs to the floor.

   ■ Place excess cable out of the way in a neatly coiled loop.

   ■ Use fasteners to maintain the shape of cable loops.

7. Press and release the power button to power on the router. Verify that the POWER ON LED lights steadily after you press the power button.

8. Verify that the PIM status LED lights steadily green to confirm that the PIM is online.

   You can also verify correct PIM functioning by issuing the show chassis fpc pic-status command described in the *JUNOS Protocols, Class of Service, and System Basics Command Reference*.

Figure 2: Installing a PIM
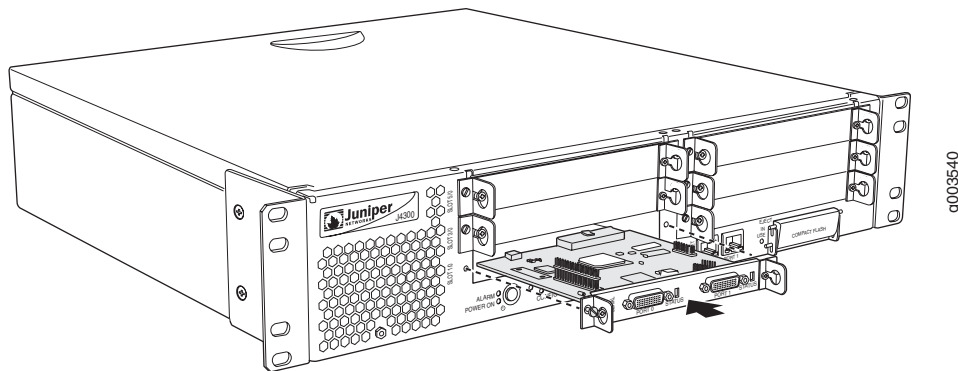
List of Technical Publications

Table 1 lists the software and hardware guides and release notes for Juniper Networks routing platforms that use the JUNOS Internet software and describes the contents of each book.

Table 1: Juniper Networks Technical Documentation

Book	Description
JUNOS for J-series, M-series, and T-series Routing Platforms Configuration Guides	
Feature Guide	Provides a detailed explanation and configuration examples for several of the most complex features in the JUNOS software.
System Basics	Provides an overview of the JUNOS software and describes how to install and upgrade the software. This manual also describes how to configure system management functions and how to configure the chassis, including user accounts, passwords, and redundancy.
Network Interfaces and Class of Service	Provides an overview of the network interface and class-of-service functions of the JUNOS software and describes how to configure the network interfaces on the router.
MPLS Applications	Provides an overview of traffic engineering concepts and describes how to configure traffic engineering protocols.
Multicast Protocols	Provides an overview of multicast concepts and describes how to configure multicast routing protocols.
Network Management	Provides an overview of network management concepts and describes how to configure various network management features, such as SNMP, accounting options, and cflowd.
Policy Framework	Provides an overview of policy concepts and describes how to configure routing policy, firewall filters, and forwarding options.
Routing Protocols	Provides an overview of routing concepts and describes how to configure routing, routing instances, and unicast routing protocols.
Services Interfaces	Provides an overview of the services interfaces functions of the JUNOS software and describes how to configure the services interfaces on the router.
VPNs	Provides an overview and describes how to configure Layer 2 and Layer 3 virtual private networks (VPNs), virtual private LAN service (VPLS), and Layer 2 circuits. Provides configuration examples.
JUNOS References	
Network and Services Interfaces Command Reference	Describes the JUNOS Internet software operational mode commands you use to monitor and troubleshoot network and services interfaces on Juniper Networks routing platforms.
Protocols, Class of Service, and System Basics Command Reference	Describes the JUNOS Internet software operational mode commands you use to monitor and troubleshoot most aspects of Juniper Networks routing platforms.
System Log Messages Reference	Describes how to access and interpret system log messages generated by JUNOS software modules and provides a reference page for each message.
JUNOScript API Documentation	
JUNOScript API Guide	Describes how to use the JUNOScript application programming interface (API) to monitor and configure Juniper Networks routers.
JUNOScript API Configuration Reference	Provides reference pages for the configuration tags in the JUNOScript API.
JUNOScript API Operational Reference	Provides reference pages for the operational tags in the JUNOScript API.

Book	Description
JUNOS Comprehensive Index and Glossary	
Comprehensive Index and Glossary	Provides a complete index of all JUNOS Internet software books and the *JUNOScript API Guide*. Also provides a comprehensive glossary.
Hardware Documentation	
Hardware Guide	Describes how to install, maintain, and troubleshoot routers and router components. Each platform has its own hardware guide.
PIC Guide	Describes the router Physical Interface Cards (PICs). Each router platform has its own PIC guide.
JUNOScope Documentation	
JUNOScope Software User Guide	Describes the JUNOScope software graphical user interface (GUI), how to install and administer the software, and how to use the software to manage router configuration files and monitor router operations.
J-series Services Router Documentation	
J-series Services Router User Guide	Contains instructions for installing, configuring, and managing a J-series Services Router. The guide explains how to prepare your site for installation, unpack and install the hardware, power on the router, configure secure routing, monitor network operations, and perform routine maintenance.
Release Notes	
JUNOS Internet Software Release Notes	Provide a summary of new features for a particular software release. Software release notes also contain corrections and updates to published JUNOS and JUNOScript manuals, provide information that might have been omitted from the manuals, and describe upgrade and downgrade procedures.
Hardware Release Notes	Describe the available documentation for the router platform and summarize known problems with the hardware and accompanying software. Each platform has its own release notes.
JUNOScope Software Release Notes	Contain corrections and updates to the published JUNOScope manual, provide information that might have been omitted from the manual, and describe upgrade and downgrade procedures.
J-series Services Router Release Notes	Briefly describe Services Router features, identify known hardware problems, and provide upgrade and downgrade instructions

Requesting Support

For technical support, open a support case using the Case Manager link at http://www.juniper.net/support/ or call 1-888-314-JTAC (within the United States) or 1-408-745-9500 (outside the United States).

For documentation issues, fill out the bug report form located at http://www.juniper.net/techpubs/docbug/docbugreport.html.

Revision History

4 November 2004—Revision 1.